

HEALTH

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THE SCAN

The Thrill Is . . . Deadly?

In the last 10 years, at least 58 people have reportedly suffered brain injuries while riding roller coasters or other thrill rides at amusement parks. Eight of them died.

The new numbers, compiled by the office of Rep. Edward Markey (D-Mass.) from both official sources and individuals, more than triple the number of cases tallied earlier. Markey's office asserts the injuries were due to the high gravitational forces (or G-forces) created by newer rides, forces that can cause the soft tissue of a rider's brain to hit the sides of the skull at high speeds. This can lead to bleeding and swelling, which can result in memory loss, nerve damage and, at worst, death.

"A roller coaster arms race has broken out in the last 10 years," said Markey. "Each park advertises that they have the most dangerous, fastest ride that's ever been built. The effect has been that every roller coaster today makes those of the 1950s and '60s look like a Model T." In the last 10 years, said a spokesman for Markey, the average top speed of rides has increased from 55 mph to 70 mph.

Three of the 58 injuries cited by Markey's office involve Virginia parks. At Paramount's Kings Dominion near Richmond, a rider reportedly suffered brain injuries in 1999 on a ride called Volcano, the Blast Coaster. In a statement, Kings Dominion said the Volcano ride has been ridden safely by 2.2 million people and has been repeatedly inspected and declared safe by state officials and independent experts. Also according to Markey's office, two riders sustained brain injuries in 1998 on the Loch Ness Monster and Drachen Fire rides at Busch Gardens in Williamsburg. The park declined requests for

comment on the incidents.

Two years ago, Markey introduced the National Amusement Park Ride Safety Act, proposing that the federal Consumer Product Safety Commission (CPSC) be given jurisdiction over the amusement park industry and that a national G-force limit be established. The bill hasn't had a hearing; Markey blames the amusement indus-



FILE PHOTO

Fun or folly? A congressman wants to put the brakes on thrill rides.

try's lobbying efforts.

Amusement park rides in fixed locations are regulated by individual states, and no state regulates the amount of G-force a ride can exert. But yesterday, New Jersey was scheduled to publish proposed regulations on G-force limits that are slated to go into effect in October.

"We think we're reaching the point that there should be some independent certification that everything's as it should be with these rides," said William Connolly, director of New Jersey's Division of Codes and Standards in the Department of Community Affairs. The effort was triggered by a 1999 incident that killed a mother and daughter at Ocean City, N.J.

The new regulations vary ac-

ording to the amount of time the rider is exposed to high G-forces and how the ride affects the body. But generally, said Connolly, the new rules would allow G-forces as high as 5.6 on rides that push riders back into their seat for one second at a time. If the pressure lasts longer, the limit would go down to 4 G's. The proposed limit for rides that hurl riders left or right or pull the body forward or up is 1.5 to 2.5. (By comparison, according to U.S. Air Force's Air Education and Training Command, fighter pilots are routinely exposed to G-forces of up to 9—though they wear pressurized suits that ease the jolt.)

Bret Lovejoy, president of Alexandria-based International Association of Amusement Parks and Attractions (IAAPA), said that Markey's campaign—based partially on unverified injury reports that may prove to be unrelated to high G-forces or even design flaws—is a disservice to the public. When Markey introduced the bill two years ago, Lovejoy said, the majority of the reports cited turned out to involve people who had medical conditions like high blood pressure. Signs warn such people not to board roller coasters and similar rides, Lovejoy said.

Lovejoy also thinks New Jersey is "jumping the gun" by adopting G-force limits. Most states adopt safety standards published by the American Society for Testing and Materials, he said. "What New Jersey has developed is very confusing and complex. If the best engineers in the industry can't understand them, then there's a problem."

But Markey hopes New Jersey's regulations "will be the beginning of a domino effect that results in a de facto national standard," he said.

—Suz Redfearn